



June 26, 2020

U.S. EPA, Region 1  
Attention: Mr. Jack Melcher and Mr. Len Wallace  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912  
Mail Code: 05-4

Submitted electronically to: [Melcher.John@epa.gov](mailto:Melcher.John@epa.gov); [Wallace.Len@epa.gov](mailto:Wallace.Len@epa.gov)

**Re:     *Response to EPA Request for Information Pursuant to Section 308 of the Clean Water Act and Section 114(a)(1) of the Clean Air Act, EPA Docket No. CWA-308-R01-FY20-60***  
***Barnhardt Manufacturing Company***  
***247 Main Road, Colrain, MA***  
***OEG Project No. 3958***

Dear Mr. Melcher and Mr. Wallace:

Omni Environmental Group (OEG), on behalf of Barnhardt Manufacturing Company (BMC), is providing this letter response to the United States Environmental Protection Agency's (USEPA) "Request for Information Pursuant to Section 308 of the Clean Water Act and Section 114(a)(1) of the Clean Air Act, EPA Docket No. CWA-308-R01-FY20-60" (the Request). The Request was received electronically by BMC counsel on May 15, 2020 and pertains to: A) compliance with certain reporting requirements of the Facility's National Pollutant Discharge Elimination System (NPDES) Permit, Parts I.B and I.C, and; B) Item 1 through Item 5, all of which are discussed on the following pages. Item 2 and Item 3 are specific to the sulfuric acid release that occurred at the BMC facility located at 247 Main Road, Colrain, MA (the Facility) on September 1, 2019.

USEPA seeks additional information relating to observations that USEPA inspectors made during the October 16, 2019 Facility inspection, documents BMC provided to EPA during the inspection, the responses provided by BMC in November 2019, and BMC's plans for achieving and maintaining compliance with the Clean Water Act (CWA) and Clean Air Act (CAA) Section 112(r).

The Request was received by BMC counsel on May 15, 2020, requiring submission of on or before June 12, 2020. The USEPA agreed to extend that due date to the close of business on June 26, 2020. The following presents attendant responses from BMC in accordance with the instructions outlined in Attachment A of the Request.

The May 2020 Request is attached hereto as [Exhibit A](#). The Statement of Certification is included as [Exhibit B](#).

## **Response to Part A of the Request for Information**

### **Reporting Requirements for Facility NPDES Permit, Parts I.B and I.C**

EPA's records indicate that Barnhardt is not in compliance with the following reporting requirements:

- The December 2018 DMR does not include the Nitrogen Removal Optimization Annual Report, due on January 15, 2019;
- The December 2019 DMR does not include the Nitrogen Removal Optimization Annual Report, due on January 15, 2020;
- The December 2018 DMR does not include the Compliance Schedule Annual Report due on January 15, 2019, nor was it submitted to the NPDES Applications Coordinator. The Facility's NPDES Permit, Parts I.B.4, I.C.2., and I.C.3, require submission of the Report both with the DMR and separately to the NPDES Applications Coordinator; and
- The December 2019 DMR does not include the Compliance Schedule Annual Report, due on January 15, 2020.

Reporting Requirements for Facility NPDES Permit, Parts I.B and I.C – BMC amended and submitted the revised December 2018/2019 DMRs on June 3, 2020. BMC submitted the Compliance Schedule Annual Reports for December 2018/2019 to the NPDES Applications Coordinator on June 5, 2020. Documentation for the amended DMRs and reporting to the NPDES Applications Coordinator is presented in [Attachment-1](#).

## **Response to Part B of the Request for Information**

### **1. General Business and Ownership Information**

**Provide a flow chart/diagram that illustrates the corporate and management structure of Barnhardt, its parent company, and its subsidiaries. Identify who has responsibility for environmental compliance within each organization.**

Response to Request 1. General Business and Ownership Information - Please see [Attachment-2](#) for the flow chart/diagram illustrating the corporate and management structure of BMC and the persons responsible for environmental compliance. Note that BMC has no parent company or subsidiaries.

## **2. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance**

- a. Provide information about the materials of construction—including what type of steel it was made of—for the 4,500-gallon Above-ground Storage Tank (“AST”) that failed, resulting in the release of sulfuric acid on September 1, 2019 (the “Release”).**

Response to Request 2.a. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance  
- The following information was obtained from the former AST’s tank Data Plate. Please see [Attachment-3](#) for photographic documentation of the tank Data Plate.

*Max design pressure: 150 pounds per square inch (psi) at 366°F.*

*Welded (W).*

*MFG & F.M. No.: 6617-1.*

*Order number: 16-0999.*

*Year built: 1966.*

*According to Facility personnel, the sulfuric AST was constructed of carbon steel. BMC recently located the Sulfuric Acid Storage Tank cut sheet and a corresponding Hall Tank Capacity Chart, provided in [Attachment-3](#). Although initially believed to be a 4,500 gallon tank, the AST capacity is 4,350 gallons, as noted on the Sulfuric Acid Storage Tank cut sheet.*

*On August 28, 2011 Tropical Storm Irene resulted in flooding of up to 5 feet from grade surface at the BMC Facility. The USGS provisional estimate for the North River flow at the gage just downstream at Shattuckville was 53,000 cubic feet per second or more than 2 times a 500-year flood event. Tropical Storm Irene destroyed approximately 30 percent of the dam in 2011. As a result of this event, the lower levels of Building No. 116, Building No. 117, Building No. 118, the WWTP Lab, Building No. 132, and Building No. 134 flooded, destroying or irreparably damaging many Facility-specific records. Photographic evidence of this catastrophic event was presented in Attachment-3 under the letter response to the USEPA RFI dated November 11, 2019. To its knowledge, BMC has no other records in its care, custody, or control regarding the sulfuric acid*

AST, as all records other the Data Plate, Sulfuric Acid Storage Tank cut sheet and Hall Tank Capacity Chart in [Attachment-3](#) are believed to be have been destroyed in Tropical Storm Irene.

- b. Provide information about the materials of construction for the piping system that delivered sulfuric acid from the AST to the bleaching and wastewater treatment processes prior to the Release.**

Response to Request 2.b. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

- A review of Facility piping running from the subject AST to the Bleachery (Building No. 134) indicated that the piping was 1.25" diameter chlorinated polyvinyl chloride (CPVC) pipe.

A review of Facility piping running from the subject AST to the influent piping leading to the aeration basin indicated that the piping consisted of approximately 12 linear feet of 1" diameter CPVC pipe. The 1" diameter CPVC consisted of a suction line that connected to the inlet side of the pump located inside the Screen Building (No. 132). The outlet side of the pump consisted of approximately 7 linear feet of half-inch CPVC pipe that connected to the influent line leading to the aeration basin.

- c. Provide information about the materials of construction and engineering design documentation for the sulfuric acid "Day Tank" in the basement of the Bleachery Building.**

Response to Request 2.c. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

- The "Day Tank," manufactured by Assmann Corporation of America, is a vertical 300-gallon, polyethylene tank measuring approximately 82-inches in height by 35-inches in width. The top of the tank includes a 16-inch lever locking manway cover. The "Day Tank" is equipped with a Honeywell level transmitter that sends a signal to the Honeywell TDC 3000 computer console located in the Bleachery (Building No. 134). The system includes a flow meter that records the amount of sulfuric acid used in the manufacturing process. Please see [Attachment-4](#) for a copy of the "Day Tank" cut sheet.

To its knowledge, BMC does not have engineering design documentation in its care, custody, and control for the existing "Day Tank" and any such documentation is presumed to have been lost as a result of Tropical Storm Irene in 2011.

- d. Item 9 of the Facility's November 21, 2019 response states that "BMC is currently working with a professional engineer to design updated sulfuric acid storage,**

containment, and metering systems for the Bleachery Building (No. 134) and Screening Building (No. 132), respectively,” and includes conceptual design documents in Attachment 9. Please provide an update on the proposed systems, including tanks, secondary containment, and delivery and distribution piping and equipment, as well as the planned schedule for installation and start-up. Please include plans with respect to sulfuric acid use in both the Bleaching building and the Screening building (wastewater treatment process) and provide a detailed explanation of how the new system will tie into the existing processes.

Response to Request 2.d. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

- Please see [Attachment-5](#) for sulfuric acid AST cut sheets with respect to sulfuric acid use in the Bleachery (Building No. 134) and Screen Building (No. 132). The sulfuric acid tanks in the Bleachery (Building No. 134) and Screen Building (No. 132) shall be installed in accordance with the conceptual basis of design presented in Attachment-9 under the letter response to the USEPA Document Review/Request dated November 21, 2019 and is further presented herein as [Attachment-6](#).

BMC has ordered necessary materials which are currently scheduled to ship on June 26, 2020. BMC anticipates completion of installation of the new sulfuric acid storage, containment, and metering systems prior to July 31, 2020.

- e. **Please provide standard operating procedures (“SOPs”) currently in place for the use of sulfuric acid in both the Bleaching Building and the Screening Building (wastewater treatment process).**

Response to Request 2.e. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

- The standard operating procedures (“SOPs”) and Behavioral Job Analyses (“BJAs”) currently in place for the use of sulfuric acid at the Facility, including in the Bleachery (Building No. 134) and the Screening Building (No. 132, wastewater treatment process) are included as [Attachment-7](#).

- f. **Please provide a list of changes made to the sulfuric acid AST in the last three years, a brief description of the changes made, the dates of those changes, and any management of change documentation developed for those changes.**

Response to Request 2.f. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

- Apart from tank removal activities performed between September 30<sup>th</sup> and October 7<sup>th</sup>, 2019, the sulfuric acid AST did not undergo any changes in the last three (3) years.

- g. Provide all records of maintenance, inspection, or testing of the Facility's sulfuric acid systems for the last five years.**

Response to Request 2.g. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

*- Please see [Attachment-8](#) for records pertaining to the maintenance, inspection and testing of the Facility's sulfuric Acid systems for the last five (5) years.*

- h. Has Barnhardt used an outside consultant to evaluate the sulfuric acid tanks (i.e., AST, Day Tank, and any others) at the Facility in the last 20 years? If so, please provide the name and contact information for the consultant, the approximate date of the inspection, and copies of the reports.**

Response to Request 2.h. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

*- Since acquiring the Facility in 2007, BMC has not used an outside consultant to evaluate the sulfuric acid AST or Day Tank. To its knowledge, BMC does not have any records of evaluations of the sulfuric acid tanks at the Facility by outside consultants in its care, custody, and control and any such documentation is presumed to have been lost as a result of Tropical Storm Irene in 2011.*

- i. Provide all records of maintenance, inspection, or testing of the grounding straps/wires for the Facility's compressed natural gas ("CNG") delivery system for the last five years.**

Response to Request 2.i. Sulfuric Acid and Compressed Natural Gas Operations and Maintenance

*- Please see [Attachment-9](#) for all vendor-related maintenance, inspection and/or testing of the grounding straps/wires for the Facility's CNG delivery system in the last five (5) years.*

*According to information provided from the vendor's Chief Administration Officer to BMC's Director of Operations between May/June 2020, the hoses used by the vendor's drivers to connect the CNG vendor trucks to the delivery piping are internally grounded as the primary layer of protection for static and electrical charge dissipation, with the existing grounding straps/wires providing the secondary layer of protection. The CNG vendor has further confirmed that their employees are trained to inspect the grounding straps/wires as part of periodic inspection, testing and maintenance activities and prior to performing delivery transfers.*

### **3. Sulfuric Acid Tank, Pump, and Release**

- a. In Barnhardt's November 11, 2019 submission, Barnhardt stated that the Release was due to the failure of a bead weld on supply piping near the eastern base of the AST that connects to the level transmitter. In the submission, Barnhardt estimated that the total amount of sulfuric acid released from the AST was approximately 53 gallons (based on subtracting the 2,866 gallons Barnhardt states it was able to recover from the 2,919 gallons Barnhardt received in its most recent sulfuric acid delivery).**
  - i. Explain and provide all calculations made to estimate the 2,866 gallons Barnhardt states that it recovered from the AST, and specify any assumptions incorporated into those calculations. For sulfuric acid waste that was removed using processes involving rinsing or dilution with other chemicals, explain how the amount of diluent was determined and provide supporting documentation.**

Response to Request 3.a.i. Sulfuric Acid Tank, Pump, and Release – *BMC wishes to clarify that the release was due to the failure of a bead weld on the eastern base of the AST connecting to the level transmitter, not the supply piping.*

*According to the recollections of BMC personnel, at the time the release was discovered, the Day Tank contained less than 100 gallons of sulfuric acid. On September 1 and 2, 2019, sulfuric acid was pumped from the AST to the Day Tank. Approximately 1,550 gallons were moved from the Day Tank and stored in various tanks and totes for future use in production. The amount of sulfuric acid retained in the Day Tank increased by approximately 200 gallons. Approximately 1,100 gallons of waste acid were recovered and transferred to the WWTP for future use in that system. Finally, an additional approximate amount of 10 gallons was recovered from the AST containment by adding baking soda to neutralize the acid and convert it to a form that could be removed from containment. This material was subsequently added to drummed remedial waste.*

*To BMC's knowledge, the above actions account for approximately 2,860 gallons. BMC has not been able to recreate exactly how the precise number of 2,866 was reached on September 3, 2019.*

- ii. Explain the basis for using the 2,919 gallons of sulfuric acid delivered on August 7, 2019, given the following factors:**

- a. The Facility had operated 25 days since the most recent delivery and was using sulfuric acid during that time;
- b. Barnhardt's calculation of the volume discharged from the AST assumes the AST was completely empty at the time of the August 7, 2019 delivery, but Barnhardt's "sulfuric acid pump operation and set points" document (Attachment 8.1 to Barnhardt's November 21, 2019 submission) instructs an operator to report to his/her supervisor that the tank is out of sulfuric acid when it contains less than 100 gallons sulfuric acid.
- c. Barnhardt stated that, at the time of the Release, the level transmitter previously used to measure the amount of sulfuric acid in the AST was not working and no other working gauge was in use.

Response to Request 3.a.ii.(a-c). Sulfuric Acid Tank, Pump, and Release – According to BMC, although the written instructions were to order sulfuric acid when the tank contained less than 100 gallons, there was no working tank gauge, therefore no accurate way to gauge the precise tank contents. The procedure in practice was to order a delivery of sulfuric acid when acid could no longer be pumped from the AST to the Day Tank. The pump intake pipe was set 10" from the bottom of the tank (as determined by BMC through physical removal and measurements made on September 3, 2019 in the presence of MassDEP). The pump would not function to transfer material to the Day Tank when the amount in the tank was at or under the intake pipe. At that point, the AST was functionally empty for BMC's purposes, as any remaining material could not be transferred for use. Sufficient stores of sulfuric acid were kept in the Day Tank to run production for several days after the AST ran dry while awaiting a delivery. On August 2, 2019, the pump failed to transfer acid from the AST to the Day Tank, and an order for a delivery of sulfuric acid was placed, with a delivery of 2,919 gallons on August 7, 2019. This amount was the basis of conservative, "worst case" calculations as it is the maximum amount of sulfuric acid that, along with the amount remaining below the intake pipe, could potentially have been present.

*It does not account for use either in the WWTP or production from August 7, 2019 to September 1, 2019, so the actual amount present would have been less.*



*According to BMC, there was no production on August 11, 18, 25, 31, or September 1, 2019, leaving a total of 21 production days between August 7 and September 1, 2019.*

**b. On what date did the level transmitter stop working?**

Response to Request 3.b. Sulfuric Acid Tank, Pump, and Release – *According to current Facility personnel, the level transmitter inside the sulfuric acid AST stopped working circa 1999.*

- i. When the level transmitter was working, how did the Facility calculate how much sulfuric acid to order? Please include in your explanation whether the final amount was determined when the order was initiated or at the time of delivery, and whether that determination was made by the Facility or the supplier.**

Response to Request 3.b.i. Sulfuric Acid Tank, Pump, and Release – *According to BMC, it is not aware of what the specific operating procedure was for ordering sulfuric acid before the level transmitter stopped working.*

- ii. After the level transmitter stopped working, how did the Facility calculate how much sulfuric acid to order? Please include in your explanation whether the final amount was determined when the order was initiated or at the time of delivery, and whether that determination was made by the Facility or the supplier.**

Response to Request 3.b.ii. Sulfuric Acid Tank, Pump, and Release – *According to BMC, following a loss of prime at the transfer pump, Facility personnel issued a purchase order to its vendor for a standard DOT load of sulfuric acid. The actual amount of the delivered load varied depending on what amount was loaded by the vendor's employees but was an average of approximately 3,000 gallons.*

**4. Wastewater**

**Wastewater discharges from the Facility are authorized by EPA's NPDES Permit No. MA0003697 (the "Individual Permit"), last re-issued by EPA on September 19, 2017, and modified on March 1, 2018.**

- a. Barnhardt's Discharge Monitoring Report ("DMR") submitted for April 2019 reflects non-compliance with the total sulfide limits set forth in Part I.A of the Individual Permit. Table 1 displays a summary of total sulfide observations in April 2019.

Table 1 – April 2019 Total Sulfide Observations

| Monitoring Period End Date | Discharge Limitation | Permit Limit (pounds per day) | Observation Reported (pounds per day) |
|----------------------------|----------------------|-------------------------------|---------------------------------------|
| 04/30/2019                 | average monthly      | 1                             | 3.71                                  |
| 04/30/2019                 | maximum daily        | 2                             | 4.94                                  |

- i. Describe the cause(s) of the total sulfide load effluent limit exceedances in April 2019.

Response to Request 4.a.i. Wastewater – Following sample analysis, Facility personnel concluded that the weighted sample tubing had migrated to an area of decreased flow within the outfall piping. This area showed signs of staining indicating a septic condition and the presence of hydrogen sulfide gas. This does not accurately reflect the overall quality of the Facility effluent. Historical sampling has shown the Facility complies with applicable permit requirements for total sulfide. The tubing location has been corrected and subsequent monitoring has not revealed a repeated problem with total sulfide analysis.

- ii. If you believe that the values reported do not correctly reflect the Facility's discharges, by the due date of this Request, amend the April 2019 DMR using, if appropriate, a No Discharge Indicator code to indicate why representative total sulfide load data is not available for the monitoring period.

Response to Request 4.a.ii. Wastewater - BMC amended and submitted the revised April 2019 DMR on June 3, 2020. Documentation for the amended DMR and revised Statement Letter is presented in [Attachment-10](#).

**iii. Describe what Barnhardt is doing to prevent further exceedances**

Response to Request 4.a.iii. Wastewater – *Aside from the total sulfide concentration detected in April 2019, the Facility has not observed nor reported total sulfide concentrations exceeding the discharge limits outlined in the Facility's NPDES Permit (MA0003697). To prevent further exceedances and to keep the sample tubing from migrating, the operator will inspect the sample tubing to ensure proper location prior to future sample collections.*

- b. Barnhardt's DMRs submitted in the last five years reflect non-compliance with the Whole Effluent Toxicity limits set forth in Part I.A of the Individual Permit. Table 2 displays a summary of non-compliance toxicity observations reported.**

**Table 2 - Summary of Non-Compliant Toxicity Observations**

| <b>Monitoring Period End Date</b> | <b>Parameter</b> | <b>Permit Minimum Limit (%)</b> | <b>Observation Reported (%)</b> |
|-----------------------------------|------------------|---------------------------------|---------------------------------|
| 04/30/2018                        | LC50             | 100                             | 82.9                            |
| 01/31/2019                        | LC50             | 100                             | 58.3                            |
| 01/31/2019                        | C-NOEC           | 5                               | <5                              |
| 04/30/2019                        | C-NOEC           | 5                               | <5                              |
| 07/31/2019                        | C-NOEC           | 5                               | 3.35                            |
| 10/31/2019                        | LC50             | 100                             | 61.6                            |
| 10/31/2019                        | C-NOEC           | 5                               | <5                              |
| 01/31/2020                        | LC50             | 100                             | 70.7                            |
| 01/31/2020                        | C-NOEC           | 5                               | 3.7                             |

Pursuant to Part I.B.4 of the Individual Permit, Barnhardt submitted a Compliance Schedule Annual Report, dated January 15, 2020. The Report states that additional work is proposed to identify the cause of the toxicity or to identify treatment alternatives, including the following:

- Toxicity testing of chemicals used in manufacturing;
- Testing for pesticides and herbicides; and
- Additional testing to further evaluate the use of activated carbon, advanced oxidation, and other treatments as outlined in EPA guidance.

**Provide a schedule by which Barnhardt will conduct additional testing and when it will develop a plan to address findings.**

Response to Request 4.b. Wastewater - Please see [Attachment-11](#) for a written statement from BMCs wastewater consultant engineer, Applied Technology and Engineering, P.C., outlining the Facility's testing to date, a schedule of additional testing to be conducted, and a plan to address findings of further testing.

- c. During the inspection on October 16, 2019, EPA observed that Barnhardt was not operating one of its two lagoons and one of its two clarifiers.**

**The O&M Plan does not provide for operating the wastewater treatment system at 50% of capacity.**

Response to Request 4.c. Wastewater – During the USEPA's inspection on October 16, 2019, both clarifiers were in full operation and one aeration basin was in operation. The skimmer on the southern clarifier was not in operation due to a prior malfunction and may have given the inspectors the impression that the southern clarifier was not operational. The operation of one skimmer had no adverse effects on the operation of the WWTP. The skimmer on the southern clarifier was repaired on June 5, 2020.

- i. Provide all available annual certifications of compliance with the BMP Plan prepared since October 1, 2018.**

Response to Request 4.c.i. Wastewater – Annual certification under the BMP is to be performed every year by the Facility's Environmental, Health & Safety (EHS) Manager. According to BMC, the certifications for 2018 and 2019 could not be located and may be a result of coverage gaps in that position.

*The annual certification process has been added to the Facility's internal project tracker as a reminder that the certification must be performed annually by the EHS Manager or, if not available, by other personnel.*

- ii. Provide a statement of the date on which the Facility began to operate its wastewater treatment system at 50% capacity.**

Response to Request 4.c.ii. Wastewater - *The Facility began to operate its wastewater treatment system with a single aeration basin on August 27, 2018 to adjust bio-retention time in response to reduced flow.*

- iii. Describe why Barnhardt has elected to operate its wastewater treatment system at 50% of capacity.**

Response to Request 4.c.iii. Wastewater - *A written statement from BMCs wastewater consultant engineer, Applied Technology and Engineering, P.C., describing why BMC has elected to operate the wastewater treatment system with a single aeration basin is provided in [Attachment-11](#).*

- iv. Describe the potential impacts on effluent quality, including but not limited to total nitrogen discharges and toxicity of the discharge, of operating the wastewater treatment system at 50% of capacity.**

Response to Request 4.c.iv. Wastewater - *A written statement from BMCs wastewater consultant engineer, Applied Technology and Engineering, P.C., describing the potential impacts on effluent quality, including but not limited to total nitrogen discharges and toxicity of the discharge, of operating the wastewater treatment system with a single aeration basin is provided in [Attachment-11](#).*

- v. Section 2.1 of the October 2018 BMP Plan states that the Director of Environmental Health and Safety will annually conduct a Comprehensive Facility Compliance Evaluation. Please provide the most recent Comprehensive Facility Compliance Evaluation.**

Response to Request 4.c.v. Wastewater - *Annual Comprehensive Facility Compliance Evaluations under the BMP are to be performed every year by the Facility's EHS Manager. According to BMC, the certifications for 2018 and 2019 could not be located and may be a result of coverage gaps in that position.*

*The annual Comprehensive Facility Compliance Evaluation process has been added to the Facility's internal project tracker as a reminder that the certification must be performed annually by the EHS Manager or, if not available, by other personnel.*

- vi. Provide a revised BMP Plan, as appropriate, as required by Part 1.B.I of the Individual Permit.

Response to Request 4.c.vi. Wastewater - See [Attachment-12](#) for a complete copy of BMC's updated Facility BMP (May 2020), prepared in accordance with Part I.B.I of the NPDES permit MA0003697, the applicable requirements set forth under 314 CMR 3.00 and 314 CMR 12.00, and in consideration of current Facility treatment works and operations.

## 5. Stormwater

Stormwater discharges from the Facility are authorized by EPA's NPDES Multi-Sector General Permit ("MSGP"), last re-issued by EPA on June 4, 2015, under which the Facility has been assigned NPDES Identification No. MAR053530.

- a. Part 3.2.1 of the MSGP requires that, "Once each quarter for the entire permit term, you must collect a stormwater sample from each outfall (except as noted in Part 3.2.3) and conduct a visual assessment of each of these samples."

Barnhardt's November 22 response to the November 2019 Request provided, in Attachment 17.4, Quarterly Visual Assessment results for 2019. Quarterly Visual Assessment results for 2019 indicated no discharge during Quarter 1 (January through March), Quarter 2 (April through June), nor Quarter 3 (July through September).

EPA reviewed precipitation data available from the National Oceanic and Atmospheric Administration for a location in Colrain, Massachusetts. According to these data, between April 1 and September 30, 2019, a precipitation event of greater than or equal to 0.1 inches occurred on 21 days with no precipitation event of greater than or equal to 0.1 inches in the previous three days. Table 2 provides a summary of such events.

**Table 2 - Precipitation Events of Greater Than or Equal to 0.1 Inches Between April 1 and September 30, 2019, with Three-Day Antecedent Dry Period**

| Date       | Precipitation Depth (inches) |
|------------|------------------------------|
| 04/01/2019 | 0.18                         |
| 04/06/2019 | 0.33                         |
| 04/21/2019 | 0.59                         |
| 05/11/2019 | 0.19                         |
| 05/18/2019 | 0.37                         |
| 05/24/2019 | 0.45                         |
| 05/29/2019 | 0.57                         |
| 06/03/2019 | 0.47                         |
| 06/11/2019 | 0.81                         |
| 06/22/2019 | 0.11                         |
| 06/26/2019 | 1.19                         |

| Date       | Precipitation Depth (inches) |
|------------|------------------------------|
| 07/01/2019 | 0.14                         |
| 07/18/2019 | 0.36                         |
| 07/23/2019 | 2.72                         |
| 07/31/2019 | 0.18                         |
| 08/08/2019 | 0.55                         |
| 08/18/2019 | 0.21                         |
| 08/29/2019 | 1.05                         |
| 09/03/2019 | 0.63                         |
| 09/13/2019 | 0.42                         |
| 09/25/2019 | 0.23                         |
|            |                              |

**Outfalls 1, 3, 4, 5, and 6 all have impervious areas located adjacent to or in close proximity to catchbasins or the outfall itself. Barring measures taken by Barnhardt to prevent discharges (such as placing spill mats over catchbasins or closing outfall valves), precipitation depths of 0.1 inches are expected to generate a stormwater discharge.**

**Provide a description of Barnhardt’s procedures for achieving compliance with the requirement in Part 3.2.1 of the MSGP to perform Quarterly Visual Assessments. Revise the Stormwater Pollution Prevention Plan (“SWPPP”) as appropriate and provide an updated copy of the revised portions of the SWPPP.**

Response to Request 5.a. Stormwater- Please see [Attachment-13](#) for an updated copy of the Facility’s SWPPP (June 2020). Revised copies of the Quarterly Visual Assessment and SWPPP Monthly Inspection Forms are included in Attachment-14.

*As outlined in Part 3.2.1 of the MSGP, the visual assessment must be made:*

- *Of a sample in a clean, colorless glass or plastic container, and examined in a well-lit area;*
- *On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge,*

*the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from your site; and*

- *For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge. The 72-hour (three-day) storm interval does not apply if you document that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period.*
- *Whenever the visual assessment shows evidence of stormwater pollution, the Facility must initiate the corrective action procedures in Part 4.*

*According to BMC, personnel trained in the collection of Quarterly Visual Assessments under the MSGP/SWPPP are present at the Facility during normal business hours (e.g. 0630-1600) Monday through Friday with limited hours on Saturday and Sunday. For this reason, there may be occurrences when trained personnel are not present at the Facility and are unable to collect the Quarterly Visual Assessment samples within 30-minutes of a precipitation event greater than 0.1 inches. During such instances, Facility personnel will collect a sample of outfall discharge as soon as possible. Notwithstanding, there may be instances when there is no further outfall discharge(s) to sample when Facility personnel attempt to collect Quarterly Visual Assessment samples greater than 30-minutes following a precipitation event greater than 0.1 inches. If Quarterly Visual Assessment samples cannot be collected within the 30-minute timeframe, or if discharge is no longer occurring when Facility personnel are present to inspect the outfalls, such information will be documented, including the reasons why, in the Quarterly Visual Assessment Forms.*

*To the extent feasible, Facility personnel shall periodically check the local weather forecast for the surrounding region and coordinate Quarterly Visual Assessment sampling with anticipated rainfall events that are likely to exceed 0.1 inches.*

*In April 2020, the Facility hired a new full-time EHS Manager who is responsible for collecting, documenting, and reporting the results of the Quarterly Visual Assessments under the MSGP as well as implementing any necessary changes at the Facility to ensure compliance.*

**b. Part 4.1 of the MSGP requires the following:**

***...you must review and revise, as appropriate, your [Stormwater Pollution Prevention Plan] ...***



- *Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).*

Barnhardt's November 22 response to the November 2019 Request provided, in Attachment 17.2, Quarterly Visual Assessment results for 2018. Quarterly Visual Assessments performed in Quarter 1 (January through March) and Quarter 2 (April through June) indicate brown, turbid stormwater discharges.

Barnhardt's November 22 response to the November 2019 Request provided, in Attachment 17.1, Monthly Visual Inspection reports for 2018. The Monthly Visual Inspection report for June 2018 indicates that the parking lot was swept at the beginning of June 2018.

Section 3.7.8 of Barnhardt's September 2019 SWPPP states that, "Every spring, the contractor is called in to sweep the paved portions of the facility and the resulting sand is removed from the premises."

Describe Barnhardt's plans to provide control measures, such as more frequent sweeping, to address the brown, turbid stormwater discharges observed during Quarter 1 and Quarter 2, 2018.

Response to Request 5.b. Stormwater- *In response to the noted brown, turbid stormwater discharges observed during Quarter 1 and Quarter 2, 2018, BMC is evaluating various inlet controls. Prior to the end of July 2020, initial controls will be selected and ordered and salient Facility personnel shall have completed training in the controls use and maintenance before end of July 2020.*

Please do not hesitate to contact the undersigned at (978) 256-6766 if you have any questions, comments, or require additional information.

Sincerely,

**Omni Environmental Group**

*Gregory R. Morand*

Gregory R. Morand, LSP  
Principal

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### **List of Attachments and Exhibits**

|               |   |
|---------------|---|
| Exhibit A     | USEPA Request for Information dated May 13, 2020  |
| Exhibit B     | State of Certification  |
| Attachment 1  | Amended DMRs for December 2018/2019 and Reporting to the NPDES Applications Coordinator |
| Attachment 2  | BMC Corporate Flow Chart  |
| Attachment 3  | Former Sulfuric Acid AST Construction Details   |
| Attachment 4  | Sulfuric Acid Day Tank Cut Sheet  |
| Attachment 5  | New Sulfuric Acid Tank Cut Sheet  |
| Attachment 6  | Conceptual Basis of Design  |
| Attachment 7  | Sulfuric Acid SOPs  |
| Attachment 8  | Maintenance, Inspection and Testing Records for Sulfuric Acid Systems                   |
| Attachment 9  | Maintenance, Inspection and Testing Records for CNG                                     |
| Attachment 10 | Amended DMR for April 2019  |
| Attachment 11 | Statement from Applied Technology and Engineering, P.C.                                 |
| Attachment 12 | BMP   |
| Attachment 13 | SWPP  |
| Attachment 14 | Quarterly Visual Assessment and Monthly SWPPP Inspection Forms                          |